

BELUGINA, Z.T., kandidat meditsinskikh nauk; ARKUSSKIY, Yu.I., professor, zaveduyushchiy; POBEDINSKIY, N.M., professor, direktor.

Roentgenotherapy of esophageal cancer by the rotation method. Vest.rent.i
rad. no.2:26-33 Mr-Ap '53. (MLRA 6:6)

1. Rentgenoterapevticheskoye otdeleniye Tsentral'nogo rentgenologicheskogo, radiologicheskogo i rakovogo instituta (for Belugina, and Arkusskiy).
2. Tsentral'nyy rentgenologicheskoy, radiologicheskoy i rakovyy institut (for Pobedinskiy). (X-rays--Therapeutic use) (Esophagus--Cancer)

ARKUSKIY, Yu. I.

Morphology and function of respiratory organs in newborns; roentgenographic investigation. Trudy AMN SSSR 29:16-18 '53. (MLRA 6:11)
(Infants (Newborn)) (Respiratory organs)

ARKUSKIY, Yu.I.; SHAGAN, B.F.

State of the cardiovascular system in newborns in disturbances of cerebral
blood circulation. Trudy AMN SSSR 29:76-81 '53. (MLRA 6:11)
(Cardiovascular system) (Blood--Circulation) (Infants (Newborn))

ARKUSSKIY, Yu.I.

Clinical and radiologic aspects of atypical forms of myocardial
infarct. Vest. rent. i rad. no.6:49-52 N-D '55. (MLRA 9:4)

1. Iz terapevticheskogo otdeleniya (zav.-prof. Yu.I. Arkusskiy)
TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo
instituta (dir.-prof. M.N. Pobedinskiy) Ministerstva zdavookhraneniya
SSSR.

(MYOCARDIAL INFARCT.
atypical, clin. & radiol. aspects)

ARKUSZENSKI, A.

"Recent Results of the Application of Guaranteed Depths on Polish Waterways."
p. 471, (GOSPODARKA WODNA, Vol. 13, No. 12, Dec. 1953. Warszawa, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC,
Vol. 3, No. 12, Dec. 1954, Uncl.

ARKUSZENSKI, A.

19th International Congress of Navigation, London, July 1957.

p. 3. (GOSPODARKA WODNA) (Warszawa, Poland) Vol. 18, no.1, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, no. 5, 1958

ARKUSZEWSKI, A.

Some problems of hydraulic engineering in England. p. 53.

GOSPODARKA WOJNA. (Naczelna Organizacja Techniczna) Warszawa, Poland.
Vol. 19, no. 2, Feb. 1959.

Monthly list of East European Accessions Index (EEAI), LC, Vol. 8, no. 6,
June 1959
uncla.

ARKUSZEWSKI, Antoni, mgr.inz.

New techniques in inland navigation by pushing, night navigation,
and the use of radiotelephones. Gosp wodna 22 no.8:361-362 '62.

1. Centralny Zarząd Wod Środlądowych, Warszawa.

ARKUSZEWSKI, Antoni, mgr inz.

Technical problems of a uniform network of European inland waterways. Gosp wodna 24 no. 5:162-167 1y '64.

1. Central Administration of Inland Waters, Warsaw.

POLAND/Nuclear Physics - Nuclear Power and Technology

C-8

Abs Jour : Ref Zhur - Fizika, No 12, 1958, No 27007

Author : Arkuszowski Jacok

Inst : Institute for Nuclear Research, Polish Academy of Sciences,
Warsaw, Poland

Title : "Two-and-a-Half" Group Equations and Their Application to
Uranium-Water Systems.

Orig Pub : Nukleonika, 1958, 3, No 2, 166-179

Abstract : A survey is compiled of the most important physical properties of uranium-water reactors. On the basis of this survey, the author proposes a method of four groups of neutrons. On the basis of a simple theory of age diffusion, the Galanin method is used to obtain four-group equations, which are then reduced to the two-group form (the so-called "two-and-a-half equations"). Also given are the boundary conditions for these equations.

Card : 1/1

POLAND/Nuclear Physics - Nuclear Power and Technology.

C

Abs Jour : Ref Zhur Fizika, No 11, 1959, 24598

Author : Arkusze¹ski, Jacek

Inst :

Title : Second Polish-Czechoslovak Conference of Specialists on Nuclear Power, Held in Liblice, Czechoslovakia on 12 - 17 May 1958.

Orig Pub : Nukleonika, 1958, 3, No 6, 695-700

Abstract : No abstract.

Card 1/1

- 30 -

Card 1/1

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000102120001-4"

- 31 -

1. [illegible]

ABSTRACT: [illegible]

[illegible]

[illegible]

[illegible]

ABSTRACT: This article, which is one of the first official reports

Card 1/7

1 1-1-1-1-1
ACCESSION NO: A14045667

of the NPP (National Political Party) ...

Card 2/7

ACCESSION NO. AP410667

Card 447

L 19670-65

ACCESSION NR: AP4045667

Average temperatures in °K ***

Substrate				Cladding				Fillet			
K	P	Y	K	P	Y	K	P	Y	K	P	Y
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100

Card 5/7

L 19670-65

ACCESSION NR: APN 45662

IN 1 1967 1 7

Neutron temperature and spectral index in ANNA

Radius cm

Exper. spectral index γ

0.094	0.120	0.126	0.121	0.100
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Card 6/7

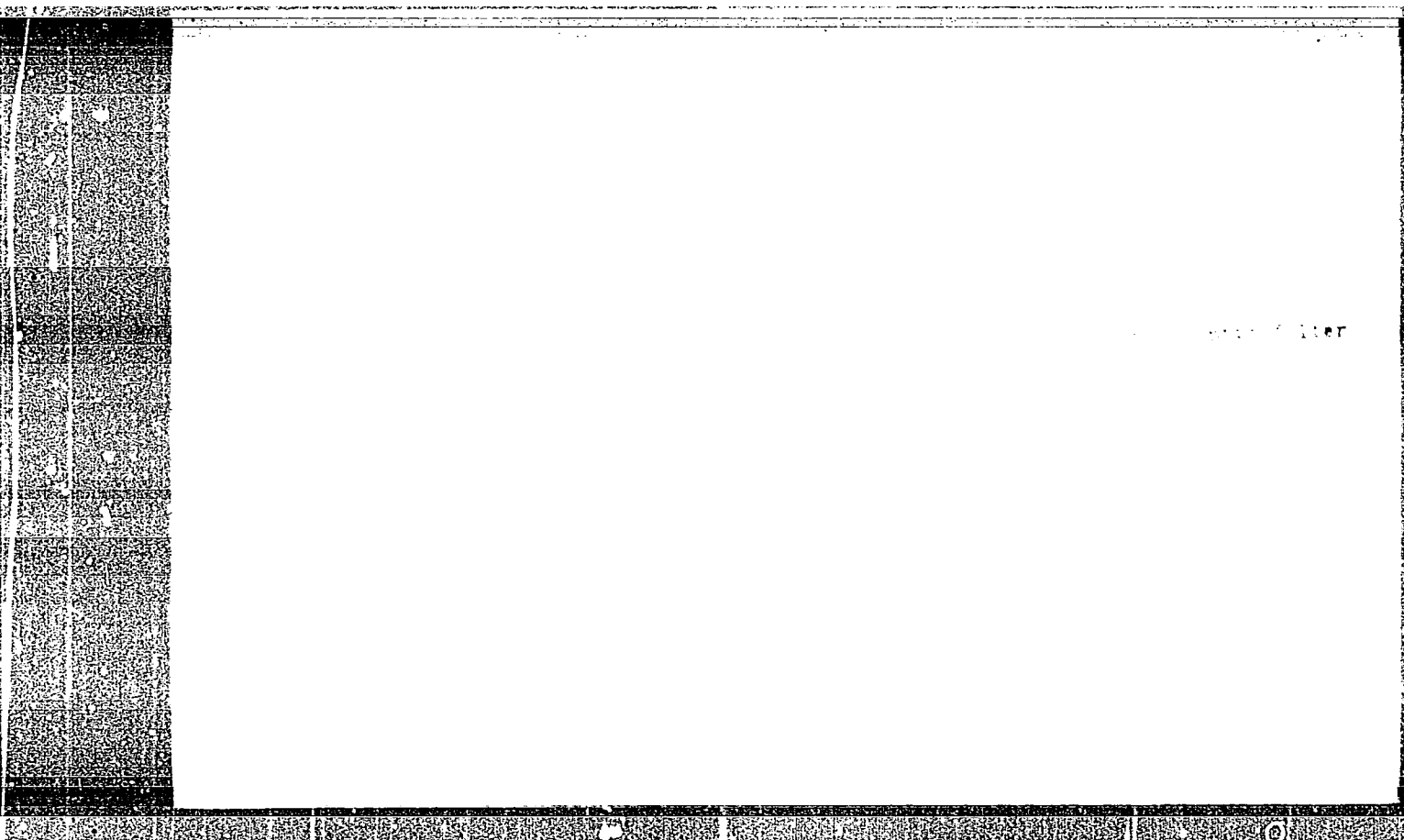
Some experiments and theoretical considerations are given.

[illegible]

Card 7/7

"APPROVED FOR RELEASE: 06/05/2000

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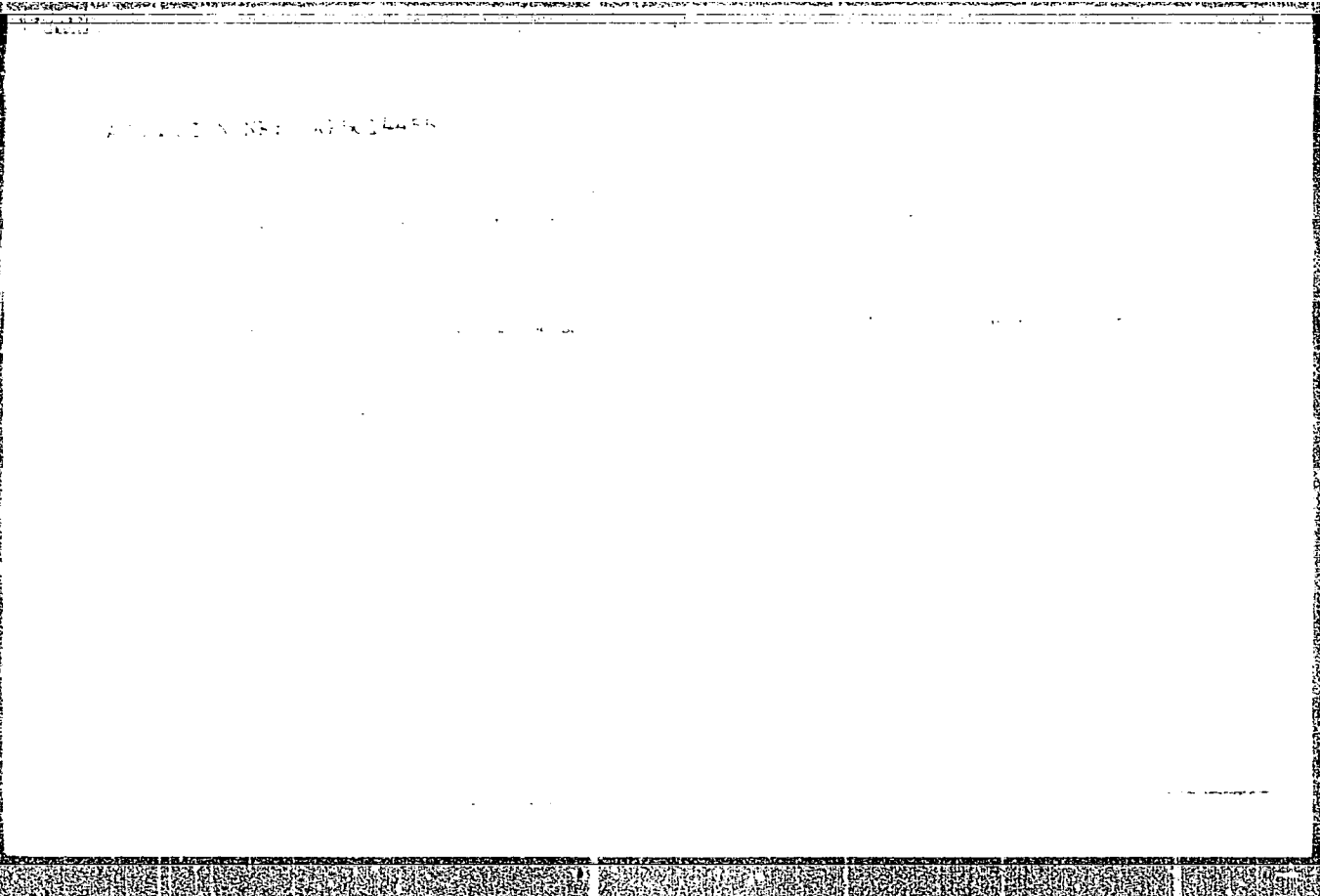


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CIA-RDP86-00513R000102120001-4"

ARKUSZEWSKI, Jerzy, mgr inż.

Fenced field sediment traps. Wiadom gorn 15 no.5:166-
167 My'64.

ARKUSZEWSKI, Jerzy, mgr inz.

Production concentration in mining by traverse longwall system
with hydraulic packing. Wiadom gorn 16 no.3:78-83 Mr '65.

BRUSZEWski mieszystaw

ARKUSZEWSKI, M.

ARKUSZEWSKI, M.

Czechoslovak-Polish Conference of Nuclear Physicists.

P. 197 (Nukleonika) Vol. 2, No. k, 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. VOL. 7, NO. 1, JAN. 1958

KRIKUNCHIK, A.B., inzh.; ARKUZ, L.Z., inzh.

Concerning N.I.Bachurin and S.V.Gordeev's suggestions. Elektro-
tekhnika 34 no.9:65-66 S '63. (MIRA 16:11)

L 1982-66 EWA(j)/EWA(b)-2 RM
ACCESSION NR: AT5024290

HU/2505/64/025/002/0133/0140 22
21
BT1

AUTHOR: Antoni, Ferenc; Arky, Istvan; Szabo, Laszlo D.; Varteresz, Vilmos

TITLE: Glycerol-induced changes in the level and metabolism of nucleic acids in bone marrow cells

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 25, no. 2, 1964, 133-140

TOPIC TAGS: nucleic acid, biologic metabolism, bone marrow, cytology, radiation biologic effect

ABSTRACT: [English article, authors' English summary modified] The DNA-P content of rabbit bone marrow is 5.8×10^{-7} microgram/cell. The corresponding value for RNA-P is 3.9×10^{-7} microgram/cell and the ratio of RNA to DNA is 0.67. Glycerol, in concentrations of 5 per cent and more, markedly decreased the RNA content of bone marrow cells but had no influence on the DNA level. Glycerol treated cells continued to incorporate both C^{14} -formate and p^{32} into RNA and DNA even though the rate of incorporation was considerably decreased. Washing procedures further decreased the ability of glycerol.

Card 1/2

L 1982-66

ACCESSION NR: AT5024290

treated cells to incorporate radioactive isotopes. The ratio of RNA to DNA, in glycerol-treated cells, underwent an unusually rapid decrease during incubation. By increasing the glycerol concentration up to 40 per cent, both purified and cytoplasm-contaminated nuclei could be isolated,

Orig. art. has: 2 figures, 3 graphs, 1 table.

ASSOCIATION: Frederic Joliot-Curie National Research Institute for Radiobiology and Radiohygiene, Budapest

ASUBMITTED: 00

ENCL: 00

SUB CODE: LS

NR REF SOV: 00

OTHER: 030

JPRS

Card 2/2 *AP.*

L 1983-66 EWA(j)/EWA(b)-2 RM

ACCESSION NR: AT5024291

HU/2505/64/025/002/0141/0148

AUTHOR: Antoni, Ferenc; Hidvegi, Egon J.; Szabo, Laszlo D.; Arky, Istvan 38
37
P41

TITLE: In vitor incorporation of P^{32} and C^{14} precursors into the nucleic acids

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 25, no. 2, 1964, 141-148

TOPIC TAGS: phosphorus, carbon, radioisotope, nucleic acid, protein, rabbit, bone marrow, radiobiology

ABSTRACT: [English article, authors' English summary modified] The incorporation of C^{14} -formate and P^{32} into the DNA of rabbit bone marrow has been investigated. A Tyrode solution with 20 per cent added rabbit serum was found to be the best suited medium for in vitro labelling and for obtaining well-reproducible specific activities. The incorporation of C^{14} -valine and C^{14} -arginine into various protein fractions of bone marrow cells has also been investigated. The radioactivity due to C^{14} -valine was always

Card 1/2

L 1983-66

ACCESSION NR: AT5024291

higher in the proteins of the homogenate and the cytoplasmic fractions than in those of the HCl-soluble and HCl-insoluble nuclear fractions. In contrast, the specific activity of C^{14} -arginine was always higher in the nuclear fraction than in the homogenate or the cytoplasmic fractions.

Orig. art. has: 2 graphs, 2 tables.

ASSOCIATION: Frederic Joliot-Curie National Research Institute for Radiobiology and Radiohygiene, Budapest

SUBMITTED: 00

ENCL: 00

SUB CODE: LS, NP

NR REF SOV: 000

OTHER: 031

JPRSA

Card 2/2 *AP*

L 1983-66
ACCESSION NR: AT5024291

higher in the proteins of the homogenate and the cytoplasmic fractions than in those of the HCl-soluble and HCl-insoluble nuclear fractions. In contrast, the specific activity of C¹⁴-arginine was always higher in the nuclear fraction than in the homogenate or the cytoplasmic fractions.

Orig. art. has: 2 graphs, 2 tables.

ASSOCIATION: Frederic Joliot-Curie National Research Institute for Radiobiology and Radiohygiene, Budapest

SUBMITTED: 00

ENCL: 00

SUB CODE: LS, NP

NR REF SOV: 000

OTHER: 031

JPRSA

Card 2/2

AP

ARLAMENKOV, N. P.

"Measuring Transmitter Deviation in Frequency Telegraphy," Vest. Svyazi - ~~XXXXXXXX~~
Elektrosvyaz, ~~B*~~ No. 7, 1948.

ZHUKOV, Tikhon Mikhaylovich; ARLAMENKOV, N.P., redaktor; ANDREYENKO, Z.D.
redaktor; KHELEMSKAYA, L.M., tekhnicheskii redaktor.

[Operation of an antenna group of a radio receiving center]
Opyt raboty antennoi gruppy priemnogo radio-tsentra. Moskva,
Gos.izd-vo lit-ry po voprosam svyazi i radio, 1954. 25 p.
[Microfilm] (MLRA 9:1)
(Radio--Antennas)

ARLAMENKOV, N.P.

Using moving wave receiving antennas. Vest.sviazi 16 no.8:8-10 Ag
'56. (MIRA 9:10)

1.Glavnyy inzhener priemnogo radiotsentra Moskovskoy direktcii
radiovyazi i radioveshchaniya.
(Radio--Antennas)

AUTHOR: Arlamenkov, N.P., Chief Engineer SOV-111-58-10-9/29

TITLE: Measuring the Principal Parameters of Trunk Line Receivers
(Izmereniye osnovnykh parametrov magistral'nykh priyemnykh ustroystv)

PERIODICAL: Vestnik svyazi, 1958, Nr 10, pp 9-11 (USSR)

ABSTRACT: Trunk line receivers must be periodically checked for sensitivity, selectivity, stability of heterodyne frequencies, accuracy of scale graduation, quality of telephone and telegraph signals, etc. In the article, the different methods for checking these parameters are described.
There are 3 diagrams and 1 graph.

1. Communication equipment--Maintenance 2. Communication equipment
---Performance

Card 1/1

ARLAND, A.

Use of physiological indices in agriculture. Fiziol. rast. 7
no.2:160-169 '60. (MIRA 14:5)

1. Institut polevodstva i resteniyevodstva, Germanskaya
Demokraticeskaya Respublika, Leyptsig.
(Agriculture--Experimentation)
(Plants--Transpiration)

ARLASAROV, M. S.

"Life and Work of Rocket Researcher Tsiolkovskiy," Leipzig/Jena, 1958

ARIASHCHENKO, N.I.

Effect of ionizing radiation on the permeability and barrier functions
of ocular vessels. Med.rad. 1 no.3:29-35 My-Je '56. (MLRA 9:10)

(EYE, blood supply

eff. of ionizing radiation on permeability & barrier
funct. of ocular vessels in rabbits)

(RADIATIONS, eff.

ionizing radiations, on permeability & barrier funct. of
ocular vessels in rabbits)

(HEMATO-ENCEPHALIC BARRIER

barrier funct. of ocular vessels in rabbits, eff. of
ionizing radiation)

USSR/Human and Animal Physiology - General Problems.

V-1

Abs Jour : Ref Zhur Biol., No 1, 1958, 3630

Author : N.I. Arlashchenko

Inst : -

Title : A Photographic Method for the Study of the Vascular Permeability of the Hemato-Ophtalmic Barrier and of Skin.

Orig Pub : Byul. eksperim. biol. i meditsiny, 1957, No 1, suppl. 52-53

Abstract : The hemato-ophtalmic barrier was studied by the means of photographs (small camera) of fluorescein in the anterior chamber of the Rabbit's eye, excited by the light of an electric bulb (273 volts) with a double blue filter (C-C 5). The photographs were taken at an angle of 90° with respect to the source of light, on a normal isopan-chromatic film, at the same exposure through a photofilter ZhS-18, at different times after the intra-veinous injection of the dye. Photometry of the negatives

Card 1/2

USSR/Human and Animal Physiology - Nervous System. Cortex of
Cerebral Hemispheres.

T-10

Abs Jour : Ref Zhur - Biol., No 7, 1958, 32140

Author : Arlashchenko, N.I., Erdman, G.M.

Inst : -

Title : On the Parabolic Changes in the Motor Zone of the Cere-
bral Cortex of a Rabbit Under the Action of Implanted
Electrodes.

Orig Pub : Fiziol. zh. SSSR, 1957, 43. No 1, 22-25.

Abstract : During extradural implantation in a rabbit of an electrode
over the point of cortical representation of the muscles
of the posterior paw, an increase of the central chronaxy
(C) was observed toward the 6-11th days, and then a reduc-
tion of it. Increase of central C was accompanied by an
increase of the central rheobase, by an increase of the
time of reaction, and by a significant decrease or increa-
se of peripheral C. Peripheral rheobase did not change

Card 1/2

ARLASHCHENKO, N.I., Cand Biol Sci -- (diss) "Variations in the penetrability of the hematoophthalmic barrier and capillary strength in rabbits after ~~exposure~~ ^{reaction to light} of ionizing radiation."

Mos, 1958, 15 pp (Acad Med Sci USSR) 220 copies (KL, 27 58, 105)

- 55 -

ARLASHCHENKO, N.I.

Effect of catechin preparation from green tea leaves on capillary permeability and strength in a rabbit exposed to whole-body irradiation.
Vit. res. i ikh isp. no.4:140-147 '59. (MIRA 14:12)

1. Ministerstvo zdavookhraneniya SSSR, Moskva.
(VITAMINS--P) (CAPILLARIES--PERMEABILITY)
(X RAYS--PHYSIOLOGICAL EFFECT)

ARLASH CHEMNO, IN 1

69

PHASE I BOOK EXPLOITATION

SOV/5435

Kiselev, P. N., Professor, G. A. Gusterin, and A. I. Strashinin, Eds.

Voprosy radiobiologii. t. III: Sbornik trudov, posvyashchenny 60-letiyu so dnya rozhdeniya Professora M. N. Pobedinskogo (Problems in Radiation Biology. v. 3: A Collection of Works Dedicated to the Sixtieth Birthday of Professor M[ikhail] N[ikolayevich] Pobedinskiy [Doctor of Medicine]) Leningrad. Tsentr. n-issl. in-t med. radiologii M-va zdravookhrananiya SSSR, 1960. 422 p. 1,500 copies printed.

Tech. Ed.: P. S. Peleshuk.

PURPOSE: This collection of articles is intended for radiobiologists.

COVERAGE: The book contains 49 articles dealing with pathogenesis, prophylaxis, and therapy of radiation diseases. Individual articles describe investigations of the biological effects of radiation carried out by workers of the Central Scientific Research Institute for Medical Radiology of the Ministry of Public Health, USSR. [Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR] during 1958-59. The following

Card 1/10

69

Problems in Radiation Biology (Cont.)

SOV/5435

topics are covered: various aspects of primary effects of radiation; the course of some metabolic processes in animals subjected to ionizing radiation; reactions in irradiated organisms; morphologic changes in radiation disease; and reparation and regeneration of tissues injured by irradiation. Some articles give attention to the effectiveness of experimental medical treatments. No personalities are mentioned. References accompany almost all of the articles.

TABLE OF CONTENTS:

Foreword	3
Gusterin, G. A., and A. I. Strashinin. Professor Mikhail Nikolayevich Pobedinskiy (Commemorating his Sixtieth Birthday)	5
Lebedinskiy, A. V. [Member, Academy of Medical Sciences USSR], <u>N. I. Arlashchenko</u> , and V. M. Mastryukova. On the Mechanism of Trophic Disturbances Due to Ionizing Radiation	11
Zedgenidze, G. A., [Member, Academy of Medical Sciences USSR], Ye. A. Zherbin, K. V. Ivanov, and P. R. Vaynshteyn. Hormonal Activity of the Adrenal Cortex in Acute Radiation Sickness and the Effect of Desoxycorticosterone Acetate on the Disease	17

Card 2/10

Problems in Radiation Biology (Cont.)

SOV/5435

Cherkasov, V. F. Reactions of the Cardiovascular System and the Respiration of Irradiated Animals to Some Functional Factors	35
Bryukhanov, O. A. Concerning the Problem of Depressant Reactions in Radiation Sickness	44
Lazovskaya, A. V. Effect of Strophanthin on the Heart of Irradiated Animals	50
Shitova, Z. I., and Ye. I. Komarov. On the Reflex Mechanism of the Change in Oxygen Absorption by Intestinal Tissue During Local Irradiation With Radioactive Strontium	55
Remizova, I. V. On Some Features of Functional Changes in the Nervous and Blood System During Repeated Small-Dose Irradiation	61
Traskunova, N. V. Effect of Blocking the Sympathetic Subdivision of the Vegetative Nervous System on the Development and Course of Acute Radiation Sickness	68
Card 3/10	

Problems in Radiation Biology (Cont.)

80V/5435

Poplavskiy, K. K. Phasic Changes in the Ability of Irradiated Animals to React to Anesthetization	78
Bondarenko, I. V. On the Reaction of Irradiated Dogs to the Introduction of Alpha Dinitrophenol	86
Alekseyeva, G. N. Reaction of an Irradiated Organism to the Introduction of Gangliolytic Preparations [gangliolitiki]	93
Protas, L. R., and A. A. Danilin. The Mechanism of Functional Disturbances in the Alimentary Canal During Acute and Subacute Forms of Experimental Radiation Sickness	97
Aleksandrov, S. N. Some Methods of Approach to the Study of Early Stages of Radiation Sequelae	104
Manoylov, S. Ye. Respiration of Tissue and Sensitivity to Radiation	111
Kachur, L. A., P. N. Kiselev, and A. N. Shutko. Effect of Ionizing Radiation on the Water-Exchange Process Between the Blood and the Extravascular Liquids in the Organism	138

Card 4/10

Problems in Radiation Biology (Cont.)

SOV/5435

- Manoylov, S. Ye., and B. A. Orlov. Use of the Spectroscopic Research Method in the Study of the Condition of Iron-Containing Compounds in Animal Organisms Irradiated With X-Rays 152
- Demin, N. N., [Professor]. On Some Metabolic Disturbances in Lipides Due to External Whole-Body Ionizing Irradiation 158
- Keylina, R. Ya. Concerning the Problem of the Condition of Processes of Synthesis and Decomposition of Carbohydrates in the Animal Organism Subjected to Whole-Body X-Ray Irradiation 165
- Shitova, Z. I. Changes in Respiration of the Skeletal Muscles Following Irradiation by Radon of Different Segments of the Nervous System 173
- Mytareva, L. V. Effect of Ionizing Radiation on a Ferment of Glycolysis of Phosphohexoisomerase in Some Organs and Tissues of an Animal Organism Subjected to Whole-Body Irradiation 183

Card 5/10

Problems in Radiation Biology (Cont.)

SOV/5435

Strelin, G. S., and Ye. M. Pil'shchik. On the Repression of Regenerative Processes in the Bone Under Various Conditions of Irradiation of Animals	188
Pushnitsina, A. D. Reactive Changes in Rat Marrow in Radiation Sickness Complicated by Loss of Blood	203
Gankina, K. I., A. I. Strashinin, G. S. Strelin, and I. V. Shiffer. Regeneration of Surgical Intestinal Wounds in Radiation Sickness	211
Shmeleva, N. I. Effect of Ether Anesthesia on the Regeneration Process of Hematogenesis in Rats With Combined Injuries	222
Lyalin, Ye. A. Change in Some Aspects of the Activity of the Thyroid Glands Following Whole-Body Irradiation	231
Lyalin, Ye. A. Effect of Whole-Body Irradiation on the Proliferating Capability of Thyroid Tissue in White Mice	236
Kantin, A. V., and P. V. Sipovskiy. Formation of the Surgical Stump of Limb During Experimental Radiation Disease in Rabbits	241

Card 6/10

7

Problems in Radiation Biology (Cont.)

SOV/5435

- Sipovskiy, P. V., and A. V. Kantin. Morphologic Healing Characteristics of the Amputational Bone Stump of Rabbits During Radiation Sickness and After Recovery 248
- Funshteyn, L. V. On Morphogenesis in Experimental Acute Radiation Sickness 256
- Fedorov, Yu. A. Effect of Fractional Whole-Body X-Ray Irradiation of Hard Dental Tissue in White Rats 265
- Funshteyn, L. V., and E. I. Shcherban'. On the Phagocytic Capability of Some Segments of the Reticuloendothelial System Following Whole-Body X-Ray Irradiation of White Mice 272
- Ochinskaya, G. V., and L. V. Funshteyn. Morphologic Changes in Internal Organs of Pregnant Animals Subjected to Whole-Body Irradiation 281
- Kholin, V. V. Comparative Data on Injury to the Spleen in Acute Radiation Disease, Depending on Age of the Animals 288

Card 7/10

Problems in Radiation Biology (Cont.)

SCW/5435

Kashchenko, L. A., N. K. Shmidt, and P. I. Ostrovskaya-Zakharevich. Reaction of the Spleen, Mucous Intestinal Membrane, and Testicles of Frogs to the Effect of Ionizing Radiation in Whole-Body and Local Irradiation	298
Kashchenko, L. A., P. I. Ostrovskaya-Zakharevich, and N. K. Shmidt. Reparation of Radiation Injury in Frog Testicles	311
Kalashnikov, B. P., and Yu. S. Kaminskaya. Experimental Data on the Injurious Effect of X-Rays on the Retina Due to Local and Whole-Body Irradiation	318
Kiselev, P. N., and V. A. Semina. Effect of Some Hormones of the Adrenal and Pituitary Glands on the Course of Autoinfectious Processes in Radiation Sickness	327
Sivertseva, V. N. Problem of the Effect of Chronic Continuous Influence of Ionizing Radiation on the Course of Infectious Processes	335
Smorodintsev, A. A. Morphologic Changes in the Respiratory Canal in Experimental Influenza of Immune White Mice Irradiated With X-Rays	344

Card 8/10

Problems in Radiation Biology (Cont.)

SOV/5435

Kashkin, K. P. On the Possibility of Adaptation of Bacterium Faecalis
Alcaligenes to the Effect of Ionizing Radiation

350

Meter, I. D. Some Data on Causes of Unsuccessful Treatment of
Radiation Disease With Antibiotics

360

Rabinovich, R. M. X-Ray-and-Anatomic Characteristics of Pulmonary
Changes in Experimental Staphylococcic Pneumonia of Irradiated Animals

369

Petrov, I. R. [Member, Academy of Medical Sciences USSR], V. A. Bondina,
and I. V. Il'inskaya. Use of the Dextran-Type Synthetic Colloidal
Solution in Combined Therapy of Radiation Sickness

376

Rusanov, A. M., G. A. Bol'shakova, and V. D. Lyashenko. Effect of
Gangliolytic Preparations [gangliolitiki] on the Course and Outcome
of Experimental Radiation Sickness

386

Card 9/10

ARLASHCHENKO, N.I.

Role of hyaluronidase in the mechanism of an early increase
in tissue barrier permeability under the action of ionizing
radiation. Med. rad. 5 no.1:42-46 Ja '60. (MIRA 15:3)

(HYALURONIDASE)

(RADIATION—PHYSIOLOGICAL EFFECT)

(TISSUES—PERMEABILITY)

ARLASHCHENKO, N.I.

Increase in the amount of protein in the moisture of the camera
oculi anterior following action of ionizing radiation of the body.
Oft. zhur. 16 no.4:233-237 '61. (MIRA 14:7)
(RADIATION—PHYSIOLOGICAL EFFECT)
(PROTEINS IN THE BODY)

ARLASHCHENKO, N.I.; LEBEDINSKIY, A.V., nauchnyy rukovoditel'

Importance of the peripheral innervation apparatus in the development of changes in the permeability of the vascular barrier after the action of ionizing radiations. Biul. eksp. biol. i med. 54 no.8: 22-25 Ag '62. (MIRA 17:11)

1. Deystvitel'nyy chlen AMN SSSR (for Lebedinskiy).

ARLASHCHENKO, N.I.; BOKHOV, B.B.; BUSYGIN, V.Ye.; VOLOKHOVA, N.A.;
GRIGOR'YEV, Yu.G.; POLYAKOV, B.I.; FARBER, Yu.V.

Body reactions during the prolonged effect of coriolis accelerations. Biul. eksp. biol. i med. 56 no.8:28-33 Ag '63.

(MIRA 17:7)

1. Nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR
prof. A.V. Lebedinskiy. Predstavleno deystvitel'nyy chlenom
AMN SSSR A.V. Lebedinskim.

ACCESSION NR: AT4042699

5/0000/63/000/000/0333/0339

AUTHOR: Lebedinskiy, A. V.; Arlashchenko, N. I.; Bokhov, B. B.; Grigor'yev, Yu. G.;
Kvasnikova, L. N.; Farber, Yu. V.

TITLE: The importance of the vestibular analyzer in the selection and training
of cosmonauts

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963.
Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy
konferentsii. Moscow, 1963, 333-339

TOPIC TAGS: rotating chamber, tilt table, rotation effect, man, Coriolis accelera-
tion

ABSTRACT: One of the main criteria upon which the system of cosmonaut selection
should be based is the evaluation of the vestibular analyzer. The evaluation of
other systems (i. e., the visual analyzer, the retina and muscles of the eye, and
interoceptors) which enable a cosmonaut to orient himself in space should be of
almost equal importance in the selection program. Experience has shown that a

Card 1/5

ACCESSION NR: AT4042699

disruption of information concerning the position or the movement of the body can lead to vegetative disorders. This consideration led to studies of the analyzer systems of each of the cosmonauts, the interaction between analyzer systems, and the condition of vegetative functions during unusual interaction between analyzers (such as the conditions which arise during space flight). The special conditions arising during space flight are limitation of afferentation in a weightless state and the presence of unusual stimulation (vibration, noise, etc.). The differentiated study of the vestibular analyzer should include determination of the threshold sensitivity of the semicircular canals to an adequate stimulus, determination of a reactivity curve during application of angular accelerations of various magnitudes, determination of adaptive abilities to the action of angular acceleration, and tests with Coriolis acceleration. The research on threshold sensitivity of the semicircular canals to adequate stimuli was performed for both positive and negative acceleration. Research performed on fifty healthy persons indicated that the scope of variation of threshold sensitivity is not great. It varies from 0.1 to 0.50 per sec² (20 second action of acceleration) for positive accelerations, and 1.5 to 5° per second (for a stop stimulus of 0.15 seconds) for negative accelerations. However, various outside stimuli and physical conditions of the environment can greatly affect the thresholds of vestibular sensitivity. The data

Card 2/5

ACCESSION NR: AT4042699

obtained indicate that the study of vestibular thresholds will be very helpful in the early detection of hidden disturbances in the activity of the analyzer which cannot be detected easily by other means. The most common forms of investigating the functions of the semicircular canals are various rotational tests. Current trends indicate that testing in the near future will be based on methods of minimal stimulation and successive rotations of increasing intensity. Evaluation will have to be based on methods which lend themselves to quantitative analysis. Numerous experiments have shown that training consisting of the systematic stimulation of the vestibular mechanism with the aid of various exercises in rotational tests increases the vestibular stability of the subjects. The speed with which adaptation takes place varies with each individual. This results in the problem of developing a test for the objective evaluation of the degree of adaptation. Tests based on registration of nystagmus are inadequate because they fail to take into account the vegetative complex. Apparently, the real picture of adaptive qualities of the vestibular analyzer can only be obtained from a summary evaluation involving vestibular-vegetative, vestibular-somatic, and sensory reactions arising in response to repeated stimulations. Laboratory studies are currently being conducted in this area. The use of Coriolis accelerations as a test has as its purpose the study of the summary reaction which arises in labyrinth recept-

Card 3/5

ACCESSION NR: AT4042699

ors in response to stimulation obtained during the combined action of angular and linear accelerations. Laboratory tests with the periodic application of Coriolis accelerations accompanied by slow rotation have indicated that even a short rotation leads to a disruption of walking, to a change in skin temperature, and to a change in the pulse frequency. At the same time, a lowering of the threshold of sensitivity to Coriolis accelerations was noted without the threshold to angular acceleration being affected. A very interesting interrelationship exists between the vestibular and optical analyzers. Laboratory experiments have confirmed that stimulation of the retina has an inhibiting effect on the vestibular analyzer. Tests have indicated that the result of interaction between the optical and the vestibular stimuli is determined by the functional condition of the vestibular analyzer. It became apparent that if the excitability of the vestibular analyzer was increased by radioactivity, inhibition of spontaneously arising nystagmus by optical stimulation of the retina became more distinct. The level of excitability of the vestibular analyzer was achieved by means of radioactive tars.

ASSOCIATION: none

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ACCESSION NR: AT4042699

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ENCL: 00

SUB CODE: LS

NO REF SOV: 000

OTHER: 000

Card 5/5

ACCESSION NR: AT4042700

8/0000/63/000/000/0339/0343

AUTHOR: Lebedinskiy, A. V.; Arlamshchenko, N. I.; Busygin, V. Ye.; Vartbaronov, R. A.; Veselov, A. S.; Volokhova, N. A.; Grigor'yev, Yu. G.; Yemel'yanov, M. P.; Kalyayeva, T. V.; Krylov, Yu. V.; Polyakov, B. I.; Farber, Yu. V.

TITLE: Effects of Coriolis accelerations on the human organism

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 339-343

TOPIC TAGS: vestibular analyzer, cosmonaut selection, cosmonaut training, semi-circular canal, acceleration, rotation, nystagmus, optical analyzer, Coriolis acceleration

ABSTRACT: Studies of the effect of prolonged Coriolis accelerations on the human organism must be made as a preliminary step toward the creation of artificial gravity in spaceships. Studies were performed in a slowly rotating MBK-1 chamber (a cylindrically shaped room 2.1 m in diameter and 2.3 m high, equipped with two armchairs). In the first series of experiments, 13 healthy persons were subjected

Card 1/2

ACCESSION NR: AT4042700

to prolonged rotation of 1 to 5 hours at an angular velocity of 5.3°/sec. In the second series of experiments, 4 subjects were rotated for 24 hours at angular velocities of 5.3, 10.6, and 21.2°/sec. Coriolis accelerations were created periodically by tilting the body and head in a plane perpendicular to the plane of rotation of the chamber at the rate of 1 movement/sec. Prolonged stay of subjects with normal vestibular sensitivity under conditions of rotation at 5.3, 10.6, and 21.2°/sec resulted in functional changes in the condition of the central nervous system and the cardiovascular system, and in disruption of the body temperature control and the balancing function. The degree of vegetative disorders was found to be directly proportional to the speed of rotation and the degree of vestibular sensitivity of the subjects. During cumulative action of Coriolis accelerations, the majority of the subjects developed an adaptation which was noted from 1 to 5 hours after beginning of the rotation. On the basis of the results obtained, the method of prolonged slow rotation is recommended for training purposes.

ASSOCIATION: none

SUBMITTED: 27Sep63

ENCL: 00

SUB CODE: 18

NO REF SOV: 000

OTHER: 000

Card 2/2

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L 08266-67 EWT(1)/EWT(m) SCTB DD/GD

ACC NR: AT6036483

SOURCE CODE: UR/0000/66/000/000/0039/0039

AUTHOR: Arlashchenko, N. I.; Suslova, L. N.; Kvaenikova, L. N.

ORG: none

TITLE: Materials on pharmacological protection of the vestibular analyzer during exposure to radiation [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 39

TOPIC TAGS: radiation protection, space pharmacology, vestibular analyzer, cosmic radiation, biologic effect, nystagmus, radiation tolerance

ABSTRACT: The importance of protecting the vestibular analyzer from adverse spaceflight effects can scarcely be overemphasized, since impaired vestibular function can prevent the successful completion of a spaceflight program. Development of methods for quantitative estimation of vestibular function made it possible to find discrepancies in vestibular reactions after various types of radiation influence on the animal organism. Deviations from the norm in vestibulograms were expressed in lowered labyrinth sensitivity to an adequate stimulus, and in decreased vestibular reactivity. Experiments were conducted to study the nystagmic reaction and the vestib-

Card 1/2

L 08266-67

ACC NR: AT6036483

ular-autonomic respiratory reaction of healthy and irradiated rabbits after the introduction of a prophylactic mixture of vitamins and amino-acids, and Aminazine (which prevents the occurrence of initial radiation reactions). The preparations used not only increased vestibular tolerance in response to an adequate stimulus, but also promoted more rapid normalization of vestibular reactions in response to ionizing radiation. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06, 18 / SUBM DATE: 00May66

Card 2/2 *egk*

ACC NR: AT6036482

SOURCE CODE: UR/0000/66/000/000/0038/0038

AUTHOR: Arlashenko, N. I.

ORG: none

TITLE: Role of the vestibular analyzer in the organism's reactions in response to radiation [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 38

TOPIC TAGS: cosmic radiation biologic effect, vestibular analyzer, rabbit, labyrinthectomy

ABSTRACT: Recent radiobiological studies have demonstrated the ability of other spaceflight factors to fundamentally alter the organism's reaction to radiation. When vestibular-autonomic reactions are under stress, the response of the organism to permissible doses of cosmic radiation depends on the functional condition of the vestibular analyzer and its physiological reactions. Experiments showed that exclusion of the vestibular analyzer in rabbits (by means of bilateral labyrinthectomy) with subsequent irradiation [parameters not given in the original] after various intervals sharply alters the course of radiation sickness. The severity and outcome of radiation sickness were observed to depend on the degree of vestibular disruption

Card 1/2

L 08267-67

ACC NR: AT6036482

caused by labyrinthectomy. Thus irradiation with the LD₆₀ dose for intact animals on the second day after vestibular exclusion caused 100% death of experimental animals. However, when rabbits were irradiated immediately after the labyrinthectomy, the same dose acted as LD₈₀. Only in animals which had survived a period of acute decompensation of equilibrium functions and vestibular-autonomic disturbances did the character of response reactions to radiation remain unchanged. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Cord 2/2 *eg/2*

ARLASHIN, A.Ya.

Modification of P.D. Solovov's operation. Urologiya no.6:
58-59 N-D '63. (MIRA 17:9)

1. Iz urologicheskoy kliniki (zav.- doktor med. nauk I.P.
Pogorelko) Tashkentskogo meditsinskogo instituta.

ARLASHIN, H.I.

A device to signal the start of sterilization. Apt.delo 7 no.3:38-41
My-Je '58 (MIRA 11:7)

(STERILIZATION--EQUIPMENT AND SUPPLIES)

ARLAUSKAS, A.

Cytology of the content of abscesses and fistulae accompanying
osteoarticular tuberculosis. Sveik. apsaug: 7-11 Mr '63.

1. Respublikine Kauno vaiku tuberkuliozes sanatorija.

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ARLAUSKAS, A.

Let's increase the role of teachers' councils. Prof.-tekh.
obr. 18 no.8:9 Ag '61. (MIRA 14:9)

1. Zaveduyushchiy respublikanskim uchebno-metodicheskim
kabinetom, g. Vil'nyus.

(Vilnius--Vocational education)

ARLAUSKAS, M. P.

Subsoiling of clay soils in Lithuania. Zemledelie 24 no.9:71-73
S '62. (MIRA 15:10)

1. Litovskiy nauchno-issledovatel'skiy institut zemledeliya.

(Lithuania--Tillage)

ARLAZOROV, M.

Take-off and landing in the sky. Znan.-sila 38 no.5:26-27 My '63.
(MIRA 16:11)

ARLAZOROV, M.

First in the stratosphere. Znan. sila 38 no.9:42-44 S '63.
(MIRA 16:12)

ARLAZOROV, M.

The path to Mars leads through Kaluga. Znan.-sila 37
no.9:12-15 S '62. (MIRA 15:12)
(Tsiolkovskii, Konstantin Eduardovich, 1857-1935)

ARLAZAROV, V.L.

SKOPETS, Z.A. (Yaroslavl'); OSTROVSKIY, A.I. (Moskva); BESEIN, L.N. (Moskva);
BALK, M.B. (Smolensk); BORSUK, M.V. (L'vov); BYKOV, A.M. (Baku);
CHAN'TURIYA, Z.A. (Tbilisi); NOVIKOVA, V.S. (Orekhovo-Zuyevo); DUBNOV,
Ya.S. (Moskva); STECHKIN, S.B. (Moskva); KHAVIN, L.P. (Leningrad);
ERDNIYEV, P., (Stavropol'); CHIAREULI, D.L. (GruzSSR); ASEKRITOV, U.M.
(Yaroslavl'); GOLUBEV, V.A. (Kuvshino); MALININ, V.V. (Leningrad);
DAVIDOV, U. (Gorod); ROZENBERG, V.I. (Leningrad); TIKHONOV, P.G.
(Kazanka); ROMANCHUK, N.A. (Khar'kov); MINLOS, R.A. (Moskva); OGAY,
S.V. (Frunze); ROFE-BEKMETOV, F.S.; BERSHTEYN, A. (Moskva); ARLAZAROV,
V.L. (Moskva)

Solutions to problems. Mat.pros. no.4:253-270 '57.

(MIRA 12:11)
(Mathematics--Problems, exercises, etc.)

ARLAZOROV, M.; KAPLAN, S.

The UT-2 training plane with an M-11 engine. Voen. znan. 25 no.5:
12-13 My '49. (MIRA 12:12)

(Airplanes)

AZERNIKOV, V.; ARLAZOROV, M.; ARSKIY, F.; BAKANOV, S.; BELOUSOV, I.;
BILENKIN, D.; VATEL', I.; VLADIMIROV, L.; GUSHCHEV, S.;
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[Little stories about the great cosmos] Malen'kie rasskazy o
bol'shom Kosmose. Izd.2., Moskva, Molodaia gvardiia, 1964.
368 p. (MIRA 18:4)

~~M. ARLAZOROV~~

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My '51. (MLRA 10:2)
(Arctic regions) (Spirin, I.)

ARLAZOROV, M.; APANAS'YEVA, K.L., red.; LEONOVA, L.P., tekhn.red.

[The future begins today; a collection of popular science sketches] Budushchee nachinaetsia segodnia; sbornik nauchno-populiarnykh ocherkov. Vladimir, Vladimirovskoe knizhnoe izd-vo, 1959. 181 p. (MIRA 13:3)

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ARLAZOROV, M.

Outer space uncovers its secrets ("Second Soviet spaceship; materials published in Pravda"). Znan. sila 35 no. 12:39 D '60.

(MIRA 13:12)

(Spaceships)

ARLAZOROV, M.

Nothing is beyond man's power ("Man reconditions the planet" by I. Adabeshov. Reviewed by M. Arlazrov). Znan.sila 36 no.1:23 Ja '61.

(MIRA 14:3)

(Science) (Adabeshov, I.) (Technology)

ARLAZOROV, M.

New facts about Tsiolkovskii. Znan.sila 36 no.3:8-10 Mr '61.

(MIRA 14:3)

(Tsiolkovskii, Konstantin Eduardovich, 1857-1935)

ARLAZOROV, M.

Investigation of the facts continues..... Nauka i zhizn' 28
no.5:72-74 My '61. (MIRA 14:6)
(Tsiolkovskii, Konstantin Eduardovich, 1857-1935)

ARLAZOROV, M. A.

USSR/Engineering - Surveying, Equipment

Nov 51

"Geodetic Automatic Instruments," M. A. Arlazorov

"Nauka i Zhizn'" Vol XVIII, No 11, p 37

Briefly describes surveyor's level designed by Engr M. A. Artanov. Instrument is attached to frame of bicycle and approximately 10 times more efficient in operation than ordinary level. Engr Artanov invented a series of geodetic instruments, 2 of which are mentioned: planigraph, drawing automatically not profile but plan of terrain, and level-planigraph, representing combination of both instruments.

213T70

1. ARLAZOROV, M.A.
2. USSR (600)
4. Leveling
7. Automatic machinery in geodesic work. Nauka i zhizn' 18 no. 11 1952

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Unclassified.

ARLAZOROV, M.

"Road to the stars" by K.E. TSiolkovskii. Reviewed by M.
Arlazorov. Tekh.mol. 29 no.8:32-33 '61. (MIRA 14:11)
(Interplanetary voyages)
(TSiolkovskii, K.E.)

ARLAZOROV, M.

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(Astronautics)

(MIRA 14:5)

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SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

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37495. ZONSHAYN, S. I. i ARLAZOROV, M. S. Bystreys zvuka. [S^verkhzvukovyye samolety].
--7 ogl. 1-y Avt: S. I. Zonshain [1]. V sb: Nauka i zhizn' M., 1949, s.
383-90.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

Arlazorov, M. S.

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Chelovek na kryl'iakh. Moskva, Gos. izd-vo Kul'tprosveta, 1950.
213 p., illus., ports.
Title tr.: Man on wings.

TL526.R9A9

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

TUKACHINSKIY, M.S.; ARLAKOROV, M.S., redaktor; AKHLANOV, S.N., tekhnicheskiiy redaktor.

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(Calculating machines)

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1952. 126 p. (Liudi russkoi nauki)
Title tr.: K. E. TSiolkovskii. His life and activity.

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SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

ARLAZOROV, M.S.; GORINOV, A.V., professor, redaktor; PODYMOV, L.M., kandidat
tekhnicheskikh nauk, redaktor; VERINA, G.P., tekhnicheskiiy redaktor.

[In search of new roads] V poiskakh novykh dorog. Pod red. A.V.Gorino-
va. Moskva, Gos. transportnoe shel-dor. izd-vo 1954. 147 p. (MLRA 7:12)

1. Chlen-korrespondent Akademii nauk SSSR (for Gorinov)
(Railroads)

ARLAZOROV, Mikhail Saulovich; KATRENKO, D.A., red.; YERMAKOVA, Ye.A.,
tekh.n.red.

[Konstantin Eduardovich TSiolkovskii; his life and work] Konstantin
Eduardovich TSiolkovskii; ego zhizn' i deiatel'nost'. Izd. 2-oe,
izspr. i dop. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1957.
142 p. (MIRA 11:2)
(TSiolkovskii, Konstantin Eduardovich, 1857-1935)

ARLAZOROV, MIKHAIL SAULOVICH

PHASE I BOOK EXPLOITATION

460

Arlazorov, Mikhail Saulovich

Chelovek na kryl'yakh (Man on Wings) Moscow, Izd-vo DOSAAF, 1958. 274 p.
30,000 copies printed.

Ed.: Grigor'yeva, A. I.; Tech. Ed.: Karyakina, M. S.

PURPOSE: The book is intended to arouse popular interest in the development of aviation and its heroes. Emphasis is placed on the progress of Russian aviation under Soviet rule.

COVERAGE: The author attempts to describe, for popular consumption, the entire development of aviation from Leonardo da Vinci's times to the most recent achievements. He has compiled an enormous amount of names, facts, figures, events, and anecdotes. The book contains 95 illustrations. It was reviewed and severely criticized for scientific inaccuracies and other shortcomings in Sovetskaya Aviatsiya, Nr 123 (2987) of May 28, 1958. There are no references.

Card 1/5

Man on Wings

460

TABLE OF
CONTENTS:

A fantasy, in lieu of an introduction	7
Ch. I. . The Atmosphere	
In pursuit of the invisible	11
Light and darkness	15
Sailing under the clouds	24
Mendelejev's achievement	26
The way to the stratosphere	29
Path of the heroes	32
Ch. II. Paths of Discovery	
Jet engines and rocket missiles	36
The first wings	41
The "little birds" (paper models) of the government official Mr. Kotov	47
Teacher at a district school	50
The flight of birds--foundation of the art of flying	53
Russian kite pilots	56
Card 2/5	

Man on Wings

460

Ch. III. Science of Flight

The history of two errors	56
Teacher and pupils	63
The loop	70
Fast and safe	79

Ch. IV. Ever Stronger Wings

Zhukovskiy's associates	81
"Russian Fliers' Day"	85
The theorist of interplanetary flights	87
The propeller as a means of propulsion; the propeller as a wing	91
The Russian aircraft engine	93
Heroes of the air	97
Man outwits death	99
Northward course	103
Russian combat aviation	106

Ch. V. Soviet Aviation

The first steps	112
Wrong oracles	117
The pilot controls the aircraft	125

Card 3/5

Man on Wings

460

Birth of the helicopter	134
Test of maturity	138
An airplane flies East	142
The road across the Pole	145
When a country demands heroism	148
Ch. VI. The Designer of Flying Tanks	
A difficult problem	150
Armor as a structural element	153
In the laboratory for artificial hurricanes	156
The role of the twin prototypes of airplanes (one destined for flight tests, one for static tests)	158
Loft drawings on plywood sheets	162
Ch. VII. For Our Soviet Fatherland!	
A frustrated design	165
Everything for the front, everything for victory	173
An unusual trophy	175
The road to victory	178
Card 4/5	